

REMARKS

Claims 1-11, 22-34, and 46-66 remain pending in the instant application. Claims 53 and 61 presently stand objected to. Claims 1-11, 22-34, and 46-62 presently stand rejected. Claims 1, 46, 53, 55, and 61 are amended herein. Claims 63-66 are new. No new matter has been added. Entry of this amendment and reconsideration of the pending claims are respectfully requested.

Applicants interviewed the Examiner regarding the claims November 7, 2007. Claims 1, 46, and 55 were discussed and arguments were presented. No agreement was reached on the claims at that time. Applicants interviewed the Examiner regarding the claims November 30, 2007. Claims 1, 7, 8, 9, 14, 46, 47, 48, 51, 55, 56 and 59 were discussed and arguments were presented. Applicants thank the Examiner for the indication that claim 1 would be allowable if amended to include the limitations of claims 7, 8, and 9, the indication that claim 14 would be allowable if similarly amended to claim 1, the indication that claim 46 would be allowable if amended to include the limitations of claims 47, 28, and 51, and the indication that claim 55 would be allowable if amended to include the limitations of claims 56 and 59. New independent claim 63 was agreed to not be anticipated by Cooper (discussed below).

Claim Objections

Claims 53 and 61 stand objected to. Claims 53 and 61 have been amended per the suggestion of the Office Action. No new matter has been added.

Claim Rejections – 35 U.S.C. § 101

Claims 46 and 55 stand rejected under 35 U.S.C. § 101. Claim 46 has been amended to clearly recite a tangible benefit of the performing the recited operations, namely: a subsequent write operation associated with the reservation can complete the write request without prevention of completion of the write operation due to insufficient memory. No new matter has been added.

The Office Action rejected claim 55 because the claims allegedly appear to have no claimed result under the condition where the block reservation has not been performed for the file. Applicants traverse the rejection, because there is no requirement that a claimed method or process apply to every conceivable condition (or even both of only two possible conditions, for that matter) to comply with section 101. Furthermore, no block reservation need be made when

the file system already has reserved sufficient blocks for the file (such as when a file is resaved after it has been made smaller by truncation, compression, and the like). Thus, in both cases, the subsequent write operation associated with the reservation can complete the write request without prevention of completion of the write operation due to insufficient memory. Thus, the benefit of having sufficient memory available is the same for both cases. Dependent claims are allowable for at least the reasons stated above.

Claim Rejections – 35 U.S.C. § 103

Claims 1, 4, 7, 8, 10, 24, 27, 30, 31, and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Owada et al. (US 6,185,665) in view of Cooper et al. (US 6,055,547) and further in view of Guenther et al. (US 5,109,336). Claims 2, 5, 25, and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Owada et al. (US 6,185,665) in view of Cooper et al. (US 6,055,547) and Guenther et al. (US 5,109,336), and further in view of Hitz et al. (US 5,819,292). Claims 3 and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Owada et al. (US 6,185,665) in view of Cooper et al. (US 6,055,547) and Guenther et al. (US 5,109,336), and further in view of Keller et al. (US 6,473,849). Claims 6 and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Owada et al. (US 6,185,665) in view of Cooper et al. (US 6,055,547) and Guenther et al. (US 5,109,336), and further in view of Soltis (US 6,697,846). Claims 11, 22, 23, and 34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Owada et al. (US 6,185,665) in view of Cooper et al. (US 6,055,547) and Guenther et al. (US 5,109,336), and further in view of Baylor et al. (US 5,634,096). Claims 9 and 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Owada et al. (US 6,185,665) in view of Cooper et al. (US 6,055,547) and Guenther et al. (US 5,109,336), and further in view of Schmuck et al. (US 5,956,734), and Akyol et al. (US 6,895,248). Claims 46 and 52 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sindhu et al. (US 6,493,347), in view of Cooper et al. (US 6,055,547). Claims 47, 48, 49 and 53 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sindhu et al. (US 6,493,347), in view of Cooper et al. (US 6,055,547), and further in view of Owada et al. (US 6,185,665). Claim 50 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Sindhu et al. (US 6,493,347), in view of Cooper et al. (US 6,055,547), and further in view of Keller et al. (US 6,473,849). Claim 51 stands rejected under 35 U.S.C. § 103(a) as being

unpatentable over Sindhu et al. (US 6,493,347), in view of Cooper et al. (US 6,055,547), and further in view of Guenther et al. (US 5,109,336). Claim 54 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Sindhu et al. (US 6,493,347), in view of Cooper et al. (US 6,055,547), and further in view of Baylor et al. (US 5,634,096). Claims 55-57, 60, and 61 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Cooper et al. (US 6,055,547), in view of Owada et al. (US 6,185,665). Claim 58 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Cooper et al. (US 6,055,547), in view of Owada et al. (US 6,185,665), and further in view of Keller et al. (US 6,473,849). Claim 59 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Cooper et al. (US 6,055,547), in view of Owada et al. (US 6,185,665), and further in view of Guenther et al. (US 5,109,336). Claim 62 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Cooper et al. (US 6,055,547), in view of Owada et al. (US 6,185,665), and further in view of Baylor et al. (US 5,634,096).

New claim 63 recites:

A computerized method of managing a file, comprising:
receiving a write request for a file;
determining a desired number of blocks in which to store the file;
determining a number of previously reserved blocks by adding allocated and nonallocated blocks previously associated with the file;
determining an additional number of blocks by subtracting the number of previously reserved blocks from the desired number of blocks in which to store the file;
reserving the additional number of blocks; and
writing the file after successfully reserving the additional number of blocks.

Owada fails to fairly teach determining an additional number of blocks by subtracting the number of previously reserved blocks from the desired number of blocks in which to store the file. Owada instead teaches reserving an entire optical device, and thus does not teach determining the additional blocks needed (which allows for more efficient memory usage).

However the Office Action asserts that Cooper teaches that block N3 (349) of Fig. 9 teaches a number of unallocated blocks needed to accommodate the file size. Instead Cooper

(col. 11, lines 6-14) teaches that block N3 (349) is a single non-allocated memory block itself, which does not teach using a plurality of blocks, and thus does not teach using or calculating the number of additional blocks needed. If the (single) block N3 of Cooper is, for the sake of argument, interpreted to be reallocated to permit additional messages to be stored in File C, it still is not allocated on the basis of performing the computation used to obtain the additional number of blocks needed. Accordingly, Cooper does not show **determining an additional number of blocks by subtracting the number of previously reserved blocks from the desired number of blocks in which to store the file.**

Guenther fails to overcome the shortcomings of Owada and Cooper, because Guenther (col. 6, lines 19037) teaches calculating the number of blocks allocated from the global storage list but not yet returned (e.g., “dirty” blocks). Instead, the additional number of blocks is determined by subtracting the number of previously reserved blocks from the desired number of blocks in which to store the file. For at least the above reasons claim 63 and all claims depending therefrom are allowable.

Claim 1 as amended recites:

A computerized method of managing a file system for a file server, comprising:
receiving a file operation that signals a reservation operation for **reserving an additional number of blocks** for storing a file of the file system, the file having a file size;

computing a first number of blocks needed to accommodate the file size;

subtracting from the first number of blocks a second number of blocks already allocated for the file and a third number of delayed allocated blocks for the file to obtain a fourth number of unallocated blocks needed to accommodate the file size; and

using the fourth number of blocks to perform a reservation of unallocated blocks for the file for later allocation.

Regarding claim 1, the Office Action concedes Owada fails to fairly teach subtracting from the first number of blocks already allocated for the file and a third number of delayed allocated blocks for the file to obtain a fourth number of unallocated blocks needed to

accommodate the file size and using the fourth number of blocks to perform a reservation of unallocated blocks to the file for later allocation.

However the Office Action asserts that Cooper teaches the missing limitations. For example, the Office Action asserts that block N3 (349) of Fig. 9 teaches a fourth number of unallocated blocks needed to accommodate the file size. Instead Cooper (col. 11, lines 6-14) teaches that block N3 (349) is a single non-allocated memory block itself, which does not teach using a plurality of blocks, and thus does not teach using or calculating the number of additional blocks needed. The (single) block N3 of Cooper could be reallocated to permit additional messages to be stored in File C, but is not allocated on the basis of performing the computation used to obtain the fourth number. Accordingly, Cooper **does not show using the fourth number of blocks to perform a reservation of (a plurality of) unallocated blocks for the file for later allocation.**

Guenther fails to overcome the shortcomings of Owada and Cooper, because Guenther (col. 6, lines 19037) teaches calculating the number of blocks allocated from the global storage list but not yet returned (e.g., “dirty” blocks). Instead, the fourth number as claimed is the fourth number of unallocated blocks needed to accommodate the file size. For at least the above reasons Claim 1 and all claims depending therefrom are allowable.

Independent claim 24 is allowable at least because the cited art fails to teach or fairly suggest instructions to cause the processor to use the fourth number of blocks to perform a reservation of unallocated blocks for the file for later allocation. Thus, claim 24 and all claims depending therefrom are allowable for at least the reasons stated above.

Independent claim 55 is allowable at least because the cited art fails to teach or fairly suggest reserving for later allocation a fourth number of unallocated blocks in the file system wherein the fourth number is calculated by subtracting from the first number of blocks a second number of blocks already allocated for the file and a third number of delayed allocated blocks for the file. Thus, claim 55 and all claims depending therefrom are allowable for at least the reasons stated above.

With respect to claim 46, the Office Action concedes that Sindhu does not fairly teach reserving for late allocation. Cooper fails to remedy this deficiency, because while Cooper teaches the size of the file may be preregistered to indicate the maximum capacity of the particular file, Cooper does not teach computing a number of blocks needed to be reserved for

the data set. Cooper thus sets a maximum size for a file and does not compute a number of blocks needed to be reserved. Cooper further does not teach reserving for later allocation a number of unallocated blocks equal to the computed number of blocks, whereby a subsequent write operation associated with the reservation can complete the write request without prevention of completion of the write operation due to insufficient memory. Instead, the maximum capacity of Cooper keeps the file from occupying too much memory. Thus, claim 46 and all claims depending therefrom are allowable for at least the reasons stated above.

In view of the above remarks, a specific discussion of the dependent claims is considered to be unnecessary. Therefore, Applicants' silence regarding any dependent claim is not to be interpreted as agreement with, or acquiescence to, the rejection of such claim or as waiving any argument regarding that claim.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants believe the applicable rejections have been overcome and all claims remaining in the application are presently in condition for allowance. Accordingly, favorable consideration and a Notice of Allowance are earnestly solicited. The Examiner is invited to telephone the undersigned representative at (206) 292-8600 if the Examiner believes that an interview might be useful for any reason.

CHARGE DEPOSIT ACCOUNT

It is not believed that extensions of time are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a). Any fees required therefore are hereby authorized to be charged to Deposit Account No. 02-2666. Please credit any overpayment to the same deposit account.

Respectfully submitted,

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10/12/07

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Cindy L. Morton 12/10/07
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